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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

MAYNARD, JENNIFER J

ART UNIT	PAPER NUMBER
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3763

DATE MAILED: 05/07/2004

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/036,640

Applicant(s)

MANNING ET AL.

Examiner

Jennifer J Maynard

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) 18-23 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12-31-01 & 2-6-04.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-17, drawn to a guide catheter, classified in class 604, subclass 164.05 .
- II. Claims 18-23, drawn to a method of inserting a payload into a coronary sinus of a patient's heart, classified in class 607, subclass 122.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as product and process of use. The inventions can be shown to be distinct if either or both of the following can be shown: (1) the process for using the product as claimed can be practiced with another materially different product or (2) the product as claimed can be used in a materially different process of using that product (MPEP § 806.05(h)). In the instant case the product as claimed can be used in a materially different process of using the product, such as for introduction of an angioplasty balloon catheter to dilate a thrombus within a vessel, for percutaneous placement of access tubes, or for guiding an indwelling dialysis catheter to a remote location within a patient's vasculature.

Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Mark A. Hollingsworth on 29 April 2004 a provisional election was made with traverse to prosecute the invention of group I, claims 1-17 drawn to the apparatus. Affirmation of this election must be made by applicant in replying to

this Office action. Claims 18-23 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 9 and 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norlander et al. (US 6,562,049 B1) in view of Dubrul (US 5,454,790 A).

Norlander et al. discloses a medical introducer apparatus, for accessing the coronary sinus, having proximal and distal ends comprising an outer guide (11) having an open lumen (26) and a longitudinal pre-stress line (46, 59) extending between a distal end and a proximal end of the outer guide, see Figure 12; an inner guide (12) having an open lumen (25), the inner guide movably disposed within the open lumen of the outer guide such that the inner guide can rotate axially and translate longitudinally relative to the outer guide, see Column 5, line 64 through Column 6, line 49, and Column 8, line 64 through Column 9, line 2, the inner guide having a

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generally straight shaft (19) or include preformed bends that approximate those found in the outer introducer sheath, it may be advantageous for the inner guide to include a distal curved portion (17) to facilitate access of a particular vessel or duct, see Column 6, lines 32-43; and a guide handle (21, 22, 23) having a proximal end (23) connected to the proximal end of the outer guide, the guide handle separable into at least two sections such that guide handle separation splits the outer guide along the longitudinal pre-stress line at the proximal end of the outer guide, see Column 8, lines 29-38, the outer guide further splitting along the longitudinal pre-stress line upon outer guide retraction in a proximal direction relative to the inner guide; and wherein the distal ends of both the outer guide and inner guide include an occlusion device (49), see Column 9, line 41 through Column 10, line 62 and Column 12, line 44 through Column 13, line 32.

Norlander et al. fails to disclose the guide handle having a distal end connected to the proximal end of the outer guide.

Dubrul discloses an apparatus for catheterization access having proximal and distal ends comprising an outer guide (110, 114) having an open lumen (not shown) and a longitudinal pre-stress line (136) extending between a distal end and a proximal end of the outer guide, see Figure 19 and 21-23; an inner guide (80) having an open lumen (not shown), the inner guide movably disposed within the open lumen of the outer guide such that the inner guide can rotate axially and translate longitudinally relative to the outer guide, see Column 8, lines 41-64; and a guide handle (134, 84), the guide handle separable into at least two sections such that guide handle separation splits the outer guide along the longitudinal pre-stress line at the proximal end of the outer guide, see Column 7, lines 64-66, Column 8, lines 38-40, and Column 8, lines 57-64, the outer guide

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further splitting along the longitudinal pre-stress line upon outer guide retraction in a proximal direction relative to the inner guide.

It would have been a matter of obvious design choice to one having ordinary skill in the art to have modified Norlander et al.'s guide handle so as to have a distal end connected to the proximal end of the outer guide as taught by Dubrul, as an equivalent alternative. Applicant has not disclosed that having the guide handle's distal end as the point of connection to the outer guide's proximal end solves any stated problem or is for any particular purpose. Moreover, it appears that the guide handle would perform equally well with the guide handle's proximal end as the point of connection to the outer guide's proximal end, i.e. Norlander et al.'s arrangement. Accordingly, the use of a distal end connection is deemed to be a design consideration, which fails to patentably distinguish over the prior art of Norlander et al. in view of Dubrul, as both connections are obvious alternatives in view of each other.

Claims 2-4 and 14-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norlander et al. (US 6,562,049 B1) in view of Dubrul (US 5,454,790 A) as applied to claims 1, 9 and 11-13 above, and further in view of Wells (US 4,952,359 A).

Norlander et al. in view of Dubrul disclose the invention as claimed with the exception of the longitudinal pre-stress line comprising two longitudinal pre-stress lines defined as two V-shaped notches situated on opposite surfaces of the outer guide.

Wells discloses a splittable catheter comprising an outer guide (11) having an open lumen (11b) and two longitudinal pre-stress lines (11a) in the form of V-shaped notches situated on opposite surfaces of the outer guide.

It would have been obvious to one having ordinary skill in the art to have modified Norlander et al. in view of Dubrul's longitudinal pre-stress lines with V-shaped notches situated on opposing sides of the outer guide as taught by Wells, so as to create a splittable guide catheter made of high strength material which exhibits the requisite circumferential resistance (i.e. hoop strength) even though areas of weakness extend from the tip of the catheter longitudinally up the catheter body, which afford the device the ability to be removed with the application of a relatively low shear tear force.

Claims 5-8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Norlander et al. (US 6,562,049 B1) in view of Dubrul (US 5,454,790 A) as applied to claims 1, 9 and 11-13 above, and further in view of Gould et al. (US 4,586,923 A).

Norlander et al. in view of Dubrul disclose the invention as claimed with the exception of a steering tendon disposed within the outer guide, a distal end of the steering tendon connected to the distal end of the outer guide, such that the steering tendon deflects the distal end of the outer guide upon application of a tensile force to a proximal end of the steering tendon, further comprising a steering mechanism connected to the proximal end of the steering tendon, the steering mechanism applying a tensile force to the proximal end of the steering tendon, wherein the steering mechanism is connected to the guide handle; and wherein the steering mechanism includes a steering handle pivotably mounted to the guide handle.

Gould et al. discloses a curving tip catheter (10) comprising an outer guide (12) having an open lumen (24) and a guide handle (40) having a distal end (44) connected to the proximal end of the outer guide (20), a steering tendon (60) disposed within the outer guide, a distal end (62)

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of the steering tendon connected to the distal end (30) of the outer guide, such that the steering tendon deflects the distal end of the outer guide upon application of a tensile force to a proximal end (64) of the steering tendon, see Figure 1, further comprising a steering mechanism (100) connected to the proximal end of the steering tendon, the steering mechanism applying a tensile force to the proximal end of the steering tendon, wherein the steering mechanism is connected to the guide handle; and wherein the steering mechanism includes a steering handle (102) pivotably mounted to the guide handle, see Figure 5.

It would have been obvious to one having ordinary skill in the art to have modified Norlander et al. in view of Dubrul's guiding catheter with the steering mechanism as taught by Gould et al., so as to adapt the guiding catheter to be inserted into and through the lumen of a blood vessel in a network of branching blood vessels in a body and is manipulatable therethrough to a desired blood vessel branch within the network of branching blood vessels.

Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Norlander et al. (US 6,562,049 B1) in view of Dubrul (US 5,454,790 A) as applied to claims 1, 9 and 11-13 above, and further in view of Schaer (US 6,002,956 A).

Norlander et al. in view of Dubrul disclose the invention as claimed with the exception of at least one electrode on the distal end of one or both of the inner guide and outer guide; and at least one electrical conductor coupled to the at least one electrode, the at least one conductor disposed within one or both of the inner guide and outer guide.

Schaer discloses an over-the-wire electrophysiology catheter, comprising an outer/inner guide (10) having an open lumen (34); and an electrode (18) on the distal end (12) of the outer/inner guide; and a conductor (16) disposed within the outer/inner guide.

It would have been obvious to one having ordinary skill in the art to have modified Norlander et al. in view of Dubrul's guiding catheter with an outer/inner guide with integral sensing electrodes, as taught by Schaer, so as to enable detection of electrical activity or signals within a patient's heart, thus facilitating treatment thereof.

Double Patenting

Claims 1, 5-7, 9-13 and 17 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 5-8, 12 and 14 of copending Application No. 10/041911 in view of Dubrul (US 5,454,790 A).

The application's claims merely add a feature, i.e. the guide handle separable into at least two sections such that guide handle separation splits the outer guide, absent from the patented claims.

Dubrul discloses an apparatus for catheterization access having proximal and distal ends comprising an outer guide (110, 114) having an open lumen (not shown) and a longitudinal pre-stress line (136) extending between a distal end and a proximal end of the outer guide, see Figure 19 and 21-23; an inner guide (80) having an open lumen (not shown), the inner guide movably disposed within the open lumen of the outer guide such that the inner guide can rotate axially and translate longitudinally relative to the outer guide, see Column 8, lines 41-64; and a guide handle (134, 84), the guide handle separable into at least two sections such that guide handle separation

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splits the outer guide along the longitudinal pre-stress line at the proximal end of the outer guide, see Column 7, lines 64-66, Column 8, lines 38-40, and Column 8, lines 57-64, the outer guide further splitting along the longitudinal pre-stress line upon outer guide retraction in a proximal direction relative to the inner guide.

It would have been obvious to one having ordinary skill in the art to have modified the patented claims to positively recite a separable guide handle at the proximal end of the outer guide, as taught by Dubrul, so as to provide a grippable surface which would enable the user to readily grasp the proximal end of the outer guide and thus facilitate the removal of the outer guide.

This is a provisional obviousness-type double patenting rejection.

Claims 2-4 and 14-16 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Application No. 10/041911 in view of Dubrul (US 5,454,790 A), as applied to claims 1, 5-7, 9-13 and 17, and further in view of Wells (US 4,952,659 A).

The application's claims in view of Dubrul render obvious the claims as recited with the exception of the longitudinal pre-stress line comprising two longitudinal pre-stress lines defined as two V-shaped notches situated on opposite surfaces of the outer guide, absent from the patented claims.

Wells discloses a splittable catheter comprising an outer guide (11) having an open lumen (11b) and two longitudinal pre-stress lines (11a) in the form of V-shaped notches situated on opposite surfaces of the outer guide.

It would have been obvious to one having ordinary skill in the art to have modified the patented claims in view of Dubrul to positively recite longitudinal pre-stress lines with V-shaped notches situated on opposing sides of the outer guide, as taught by Wells, so as to create a splittable guide catheter made of high strength material which exhibits the requisite circumferential resistance (i.e. hoop strength) even though areas of weakness extend from the tip of the catheter longitudinally up the catheter body, which afford the device the ability to be removed with the application of a relatively low shear tear force.

This is a provisional obviousness-type double patenting rejection.

Claim 8 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Application No. 10/041911 in view of Dubrul (US 5,454,790 A), as applied to claims 1, 5-7, 9-13 and 17, and further in view of Gould et al. (US 4,586,923 A).

The application's claims in view of Dubrul render obvious the claims as recited with the exception of the steering mechanism including a steering handle pivotably mounted to the guide handle, absent from the patented claims.

Gould et al. discloses a curving tip catheter (10) comprising an outer guide (12) having an open lumen (24) and a guide handle (40) having a distal end (44) connected to the proximal end of the outer guide (20), a steering tendon (60) disposed within the outer guide, a distal end (62) of the steering tendon connected to the distal end (30) of the outer guide, such that the steering tendon deflects the distal end of the outer guide upon application of a tensile force to a proximal end (64) of the steering tendon, see Figure 1, further comprising a steering mechanism (100)

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connected to the proximal end of the steering tendon, the steering mechanism applying a tensile force to the proximal end of the steering tendon, wherein the steering mechanism is connected to the guide handle; and wherein the steering mechanism includes a steering handle (102) pivotably mounted to the guide handle, see Figure 5.

It would have been obvious to one having ordinary skill in the art to have modified the patented claims in view of Dubrul to positively recite the steering mechanism including a steering handle pivotably mounted to the guide handle, as taught by Gould et al., so as to adapt the guiding catheter to be inserted into and through the lumen of a blood vessel in a network of branching blood vessels in a body and is manipulatable therethrough to a desired blood vessel branch within the network of branching blood vessels.

This is a provisional obviousness-type double patenting rejection.

Claims 1, 5, 6, 9-13 and 17 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1, 5, 6, 11-14 and 16 of copending Application No. 10/014,735 in view of Norlander et al. (US 6,562,049 A) and further in view of Dubrul (US 5,454,790 A).

The application's claims merely add features, i.e., a longitudinal pre-stress line extending between the proximal and distal ends of the outer guide; a guide handle having a distal end connected to the proximal end of the outer guide, the guide handle separable into at least two sections such that guide handle separation splits the outer guide; and an occlusion device connected to a distal end of the inner guide, absent from the patented claims.

Norlander et al. discloses a medical introducer apparatus, for accessing the coronary sinus, having proximal and distal ends comprising an outer guide (11) having an open lumen (26) and a longitudinal pre-stress line (46, 59) extending between a distal end and a proximal end of the outer guide, see Figure 12; an inner guide (12) having an open lumen (25), the inner guide movably disposed within the open lumen of the outer guide such that the inner guide can rotate axially and translate longitudinally relative to the outer guide, see Column 5, line 64 through Column 6, line 49, and Column 8, line 64 through Column 9, line 2, the inner guide having a generally straight shaft (19) or include preformed bends that approximate those found in the outer introducer sheath, it may be advantageous for the inner guide to include a distal curved portion (17) to facilitate access of a particular vessel or duct, see Column 6, lines 32-43; and a guide handle (21, 22, 23) having a proximal end (23) connected to the proximal end of the outer guide, the guide handle separable into at least two sections such that guide handle separation splits the outer guide along the longitudinal pre-stress line at the proximal end of the outer guide, see Column 8, lines 29-38, the outer guide further splitting along the longitudinal pre-stress line upon outer guide retraction in a proximal direction relative to the inner guide; and wherein the distal ends of both the outer guide and inner guide include an occlusion device (49), see Column 9, line 41 through Column 10, line 62 and Column 12, line 44 through Column 13, line 32.

It would have been obvious to one having ordinary skill in the art to have modified the patented claims to positively recite a longitudinal pre-stress line extending between the proximal and distal ends of the outer guide, as well as an occlusion device connected to a distal end of the inner guide, as taught by Norlander et al., so as to enable removal of the outer guide and/or inner guide relative to the position-dependent device being delivered via the guide catheter, such as in

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the case of placement of devices such as a pacemaker and defibrillator leads; as well as to provide a means of temporarily occluding the vessel while contrast media is injected to improve fluoroscopic guidance of the device to the target site.

Further the patented claims in view of Norlander et al. render obvious the claims as recited with the exception of the guide handle having a distal end connected to the proximal end of the outer guide, absent from the patented claims.

Dubrul discloses an apparatus for catheterization access having proximal and distal ends comprising an outer guide (110, 114) having an open lumen (not shown) and a longitudinal pre-stress line (136) extending between a distal end and a proximal end of the outer guide, see Figure 19 and 21-23; an inner guide (80) having an open lumen (not shown), the inner guide movably disposed within the open lumen of the outer guide such that the inner guide can rotate axially and translate longitudinally relative to the outer guide, see Column 8, lines 41-64; and a guide handle (134, 84), the guide handle separable into at least two sections such that guide handle separation splits the outer guide along the longitudinal pre-stress line at the proximal end of the outer guide, see Column 7, lines 64-66, Column 8, lines 38-40, and Column 8, lines 57-64, the outer guide further splitting along the longitudinal pre-stress line upon outer guide retraction in a proximal direction relative to the inner guide.

It would have been a matter of obvious design choice to one having ordinary skill in the art to have modified the patented claims in view of Norlander et al. to positively recite a guide handle with a distal end connected to the proximal end of the outer guide as taught by Dubrul, as an equivalent alternative. Applicant has not disclosed that having the guide handle's distal end as the point of connection to the outer guide's proximal end solves any stated problem or is for

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any particular purpose. Moreover, it appears that the guide handle would perform equally well with the guide handle's proximal end as the point of connection to the outer guide's proximal end, i.e. Norlander et al.'s arrangement. Accordingly, the use of a distal end connection is deemed to be a design consideration, which fails to patentably distinguish over the prior art of Norlander et al. in view of Dubrul, as both connections are obvious alternatives in view of each other.

This is a provisional obviousness-type double patenting rejection.

Claims 2-4 and 14-16 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Application No. 10/014,735 in view of Norlander et al. (US 6,562,049 A) and further in view of Dubrul (US 5,454,790 A), as applied to claims 1, 5, 6, 9-11, 13 and 17, and further in view of Wells (US 4,952,659 A).

The application's claims in view of Norlander et al. and further in view of Dubrul render obvious the claims as recited with the exception of the longitudinal pre-stress line comprising two longitudinal pre-stress lines defined as two V-shaped notches situated on opposite surfaces of the outer guide, absent from the patented claims.

Wells discloses a splittable catheter comprising an outer guide (11) having an open lumen (11b) and two longitudinal pre-stress lines (11a) in the form of V-shaped notches situated on opposite surfaces of the outer guide.

It would have been obvious to one having ordinary skill in the art to have modified the patented claims in view of Norlander et al. and further in view of Dubrul to positively recite longitudinal pre-stress lines with V-shaped notches situated on opposing sides of the outer guide,

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as taught by Wells, so as to create a splittable guide catheter made of high strength material which exhibits the requisite circumferential resistance (i.e. hoop strength) even though areas of weakness extend from the tip of the catheter longitudinally up the catheter body, which afford the device the ability to be removed with the application of a relatively low shear tear force.

This is a provisional obviousness-type double patenting rejection.

Claims 7 and 8 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over Application No. 10/014,735 in view of Norlander et al. (US 6,562,049 A) and further in view of Dubrul (US 5,454,790 A), as applied to claims 1, 5, 6, 9-11, 13 and 17, and further in view of Gould et al. (US 4,586,923 A).

The application's claims in view of Norlander et al. and further in view of Dubrul render obvious the claims as recited with the exception of the steering mechanism connected to the guide handle and including a steering handle pivotably mounted to the guide handle, absent from the patented claims.

Gould et al. discloses a curving tip catheter (10) comprising an outer guide (12) having an open lumen (24) and a guide handle (40) having a distal end (44) connected to the proximal end of the outer guide (20), a steering tendon (60) disposed within the outer guide, a distal end (62) of the steering tendon connected to the distal end (30) of the outer guide, such that the steering tendon deflects the distal end of the outer guide upon application of a tensile force to a proximal end (64) of the steering tendon, see Figure 1, further comprising a steering mechanism (100) connected to the proximal end of the steering tendon, the steering mechanism applying a tensile force to the proximal end of the steering tendon, wherein the steering mechanism is connected to

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the guide handle; and wherein the steering mechanism includes a steering handle (102) pivotably mounted to the guide handle, see Figure 5.

It would have been obvious to one having ordinary skill in the art to have modified the patented claims in view of Norlander et al. and further in view of Dubrul to positively recite the steering mechanism connected to the guide handle and including a steering handle pivotably mounted to the guide handle, as taught by Gould et al., so as to adapt the guiding catheter to be in to be inserted into and through the lumen of a blood vessel in a network of branching blood vessels in a body and is manipulatable therethrough to a desired blood vessel branch within the network of branching blood vessels.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer J Maynard whose telephone number is 703.305.1356. The examiner can normally be reached on Mondays-Fridays 9:30 AM-5:30 PM; 1st Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Casler can be reached on 703.308.3552. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

J Maynard

